REMARKS

Pages 4 and 10 of the specification were amended to correct minor clerical errors.

The amendment to claim 1 regarding "a polymer obtained by curing said compound (C) alone has a refractive index of 1.55 or greater" is supported by page 10, lines 9 to 14 of the specification.

The amendment to claim 1 of a "refractive index of 1.53 to 1.70" is supported by page 9, lines 19 to 20 of the specification.

The amendments to claims 2, 4, 5, 7 and 8 involve only minor editorial revisions.

New claim 11 is supported by page 11, lines 11 to 13 of the present specification.

New claim 12 is supported by page 13, lines 3 to 5 of the present specification.

New claims 13 to 15 are supported by page 14, lines 6 to 16 of the present specification.

New claims 16 to 21 are supported by page 10, lines 6 to 8 of the present specification.

The presently claimed invention concerns a hard coat film which comprises a hard coat layer formed by coating at least one face of a substrate with a coating fluid which comprises a component for forming a hard coat layer consisting essentially of (A) a compound which is formed by bonding an organic compound having a polymerizable unsaturated group to fine particles of silica, (B) an ester of (meth)acrylic acid having an alicyclic structure and (C) a compound having at least two polymerizable unsaturated groups and at least one aryl group in a molecule, wherein a polymer obtained by curing the compound (C) alone has a refractive index of 1.55 or greater, and curing a layer of the coating fluid formed on the face of the substrate by irradiation with an ionizing radiation, wherein the hard coat layer comprises 20 to 60% by weight of silica and has a refractive index of 1.53 to 1.70.

Claims 1 to 10 were rejected under 35 USC 103 as being unpatentable over US 2002/0058737 to Nishiwaki et al. for the reasons stated in item no. 2 on pages 2 to 3 of the Office Action.

The applicants respectfully disagree with the 35 USC 103 rejection for the following reasons.

Nishiwaki et al. disclose a resin composition exhibiting alleged excellent coatability and capable of forming coatings with high hardness, superior scratch resistance, low curling properties, superb adhesion, excellent transparency, and a superior coating surface appearance without a wavy striation, steaks, unevenness of coatings, cissing, and the like, as well as cured products made from the resin composition (see the ABSTRACT of Nishiwaki et al.).

The present invention has an object of providing a hard coat film exhibiting excellent scratch resistance, little shrinking by curing and little shrinking and curing under a high temperature and a high humidity, without forming optical interference fringes. To obtain a hard coat film without forming optical interference fringes, it is important that the hard coat layer has a refractive index of 1.53 to 1.70 (see page 9, lines 19 to 24 of the present specification). To obtain such a hard coat layer, it is preferable that the compound having at least two polymerizable unsaturated groups and at least one aryl group in the molecule has a property such that the polymer obtained by curing this compound alone has a refractive index of 1.55 or greater, since the refractive index of the hard coat layer can be easily brought to a value of 1.53 or greater. Nishiwaki et al. do not teach or suggest such feature.

The desirable results obtained by the inclusion of applicants' component (C), a compound having at least two polymerizable unsaturated groups and at least one aryl group in the molecule, is seen by comparing the data of evaluation of optical interference fringes of Examples 1 to 3 with those of Comparative Examples 1 and 3 shown in the bottom column of Table 1 on page 25 of the present specification.

Nishiwaki et al. is quite silent throughout their disclosure regarding a hard coat film which does not form optical interference fringes.

Although Nishiwaki et al. disclose that additional components such as (b1) comprising a reaction product of pentaerythritol tri(meth)acrylate and 2,4-tolylene diisocyanate may be added (paragraphs 0147 to 0152), Nishiwaki et al. do not disclose to use such compound in any of the Examples in US 2002/0058734. It is apparent that Nishiwaki et al. did not intend to provide a hard coat film which does not form optical interference fringes.

It is respectfully submitted that one of ordinary skill in the art would not be taught or motivated from Nishiwaki et al. to obtain a hard coat film which does not form optical interference fringes.

It is therefore respectfully submitted that applicants' claimed invention is not rendered obvious by Nishiwaki et al. Withdrawal of the 35 USC 103 rejection is thus respectfully requested.

Reconsideration is requested. Allowance is solicited.

Enclosed is a check for $50 in payment of one additional claim.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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